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SUGAR REPORTS

U. S. DEPARTMENT OF AGRICULTURE - COMMODITY STABILIZATION SERVICE - SUGAR DIVISION

Washington, D. C.

MAY 1954

No. 25

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MARKET REVIEW

Following the 200 thousand ton increase in the United States quotas on March 16 the price of raw sugar at New York dropped 15 points, from 6.25 to 6.10 cents per pound, but on March 31 increased to 6.20 cents and remained at this level until April 28 when it declined to 6.15 cents. By May 14 it had declined to 6.05 cents. The average price for the first four months was 6.12 cents as compared to 6.23 cents for January-April, 1953. The decline during May in the spot price has not been followed by a similar decline in the futures price for nearby positions.

The world market price, f.a.s. Cuba, has ranged only between 3.25 and 3.38 cents per pound since January 1, whereas in the same period of 1953 the range was between 3.12 and 3.58 cents. The International Sugar Council, at its meeting in London in early May, reduced world export quotas by an additional 5 percent. Previously, in December 1953, the quotas had been cut 15 percent. Cuba continues to hold its full world quota for the current year to only 700,000 short tons. Trade sources report that the unsold balance of this quota is quite small and that President Batista has indicated there will be no additional releases to this quota until it becomes insufficient to fill normal demand. The price of Cuban sugar at New York, less duty, freight and insurance, averaged for January-April 1954, 1.90 cents per pound above the price, f.a.s. Cuba, of sugar for the world market. This quota premium is approximately the same as that for the first four months of 1953.

The quoted wholesale price of refined sugar at New York has been 8.80 cents per pound since March 15 as compared to 8.75 cents at this time last year. However, in the south and the Chicago-west territories, although the quoted prices for cane and beet sugar are 8.65 cents and 8.45 cents, respectively, deliveries are still being made at 8.30 and 8.10 cents, the prices in effect before either of the two increases which have occurred in those territories this year.

Distribution of sugar by primary distributors during January-April amounted to 2,448 thousand tons, raw value, 140 thousand tons less than the quantity distributed during the same period of 1953 but 80 thousand tons more than the 1949-53 average of 2,369 thousand tons. Distribution during late 1953 was unusually heavy, the quantity distributed during October-December amounting to 230 thousand tons more than in the same period of 1952 and 310 thousand tons more than the average for 1949-52. Distribution during the seven-month period, October 1953 through April 1954 amounted to 4,464 thousand tons as compared to 4,375 thousand tons during the comparable period a year earlier. Stocks held by wholesalers, retailers and industrial users increased only slightly during the 1952-53 seven-month period and such stocks on October 1, 1952 and 1953 were

approximately the same. Although data relative to the current level of the stocks of this group are not available there is no indication of an increase above the level of last year. Since October-April is a period of seasonally low consumption the 90 thousand ton increase in distribution during the 1953-54 period over that in the 1952-53 period is somewhat larger than the quantity which would be required in that seven-month period for increased population. There also are indications that in view of the decline in the price of raw sugar this year, refined buyers are holding their current purchases to a minimum in expectation of a narrowing of the margin between the prices of raw and refined. This margin averaged for the month of April 2.61 cents per pound as compared to 2.37 cents for April 1953, and for January-April 2.59 cents this year as against 2.39 last year. For the period May 14-18, when the spot price of raw sugar, duty paid at New York, was 6.05 cents per pound this margin reached 2.75 cents. The prolonged cool weather this spring also may have contributed to the slow movement of sugar into consuming channels in the early months of this year.

Charges against quotas during the first four months of the year were approximately 120 thousand tons less than during the same period of last year but because of their lower distribution refiners' and importers' stocks on May 1 were substantially higher than on April 30, 1953. This comfortable stock position has tended to keep the price of raw sugar at the lower level.

CHANGES IN RAW SUGAR QUALITY

Recent increases in the quantity of high quality raw sugars which are being imported 1/ into the United States have caused us to pause to examine the pattern of the trends and to try to determine what factors may be contributing to the trends. No doubt, technological improvements in raw sugar mills and an increase in technical knowledge with regard to the culture and processing of sugarcane have had an effect on the pattern, but these, of course, are not the only factors involved. At times, it appears that other factors have a greater effect than do technological advances. It is also necessary to examine these trends in light of the effect they may have on direct-consumption sugars. The continued increase in the quality of raws must eventually lead to the elimination of any simple physical distinction between raw sugar and that class of direct-consumption sugars, which includes turbinados, washed sugars, clarified sugars, and plantation whites. 2/

1/ "Imported" and "imports" as used in this discussion include sugar brought in from the territories.

2/ Direct-consumption sugars also include refined sugars, but we are concerned here only with those direct-consumption cane sugars which receive a single processing.

Table 1.- Polarization of raw sugar imports.

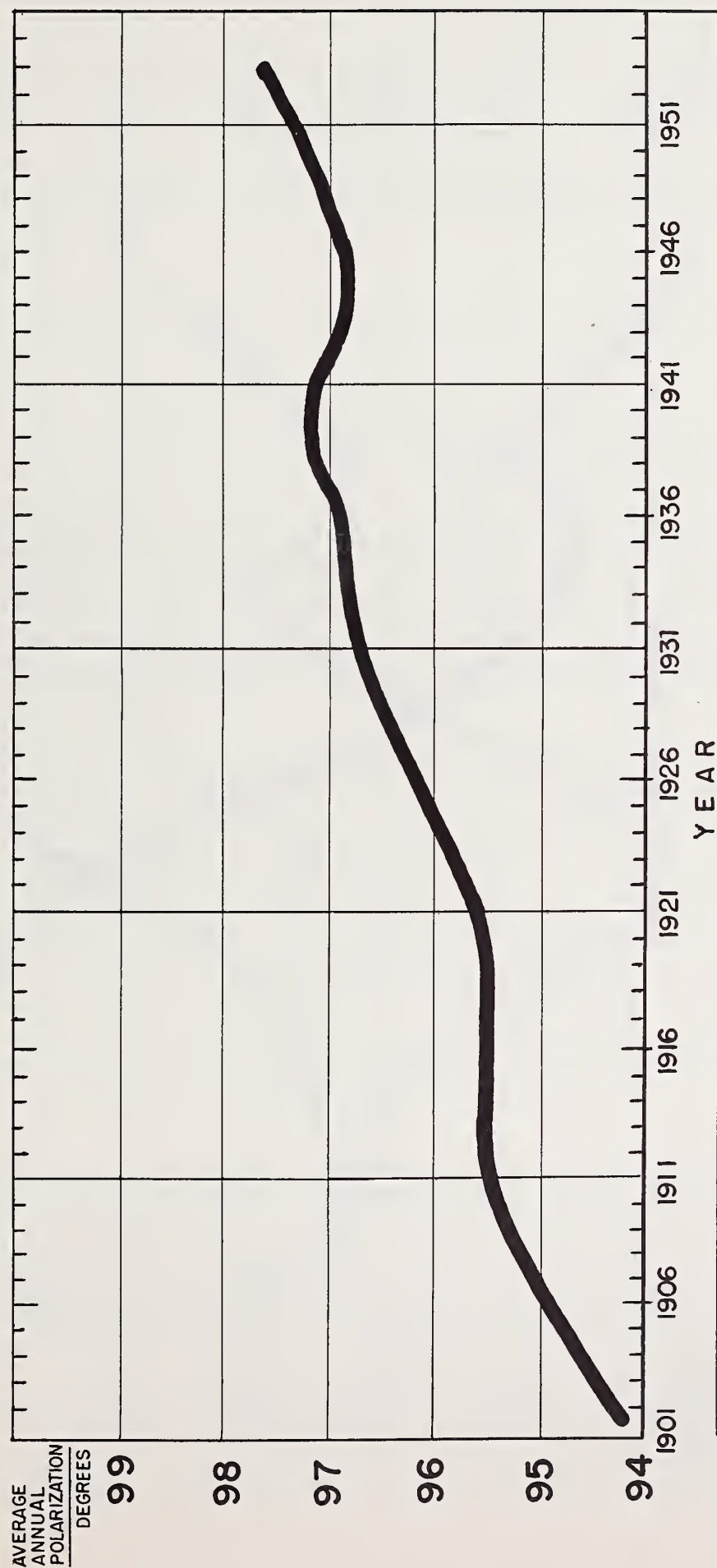
Year	Degrees						Average Polarization
	99- 100	98- 99	97- 98	96- 97	95- 96	Below 95	
Percentage of total sample 1/							
1910	2/	3.2	11.8	26.6	34.3	23.9	95.2
1911	—	2.6	12.9	27.3	28.9	28.2	94.7
1912	—	1.6	11.2	28.8	34.4	23.1	95.0
1913	—	1.7	9.8	33.6	38.2	16.4	95.7
1914	0.1	0.9	9.4	38.6	31.0	19.8	95.2
1915	0.1	0.4	6.5	39.3	32.6	21.0	95.0
1916	—	0.2	4.9	40.3	35.6	19.0	95.3
1917	—	1.2	9.7	39.2	35.3	14.6	95.7
1918	—	0.04	6.1	39.1	36.6	18.2	95.4
1920	0.2	1.6	5.5	34.0	32.8	23.9	95.1
1921	0.6	0.3	6.0	38.5	33.0	21.7	95.6
1922	—	0.1	3.9	39.0	32.0	24.7	95.5
1923	—	0.1	5.6	52.9	31.9	9.6	96.0
1924	0.2	—	5.8	55.4	28.6	9.9	96.0
1925	—	—	7.8	58.6	26.5	7.0	96.1
1926	0.1	—	8.0	58.2	25.3	7.4	96.1
1927	0.4	0.1	15.1	65.3	15.6	3.4	96.4
1928	0.1	0.6	17.2	63.1	15.2	3.8	96.4
1929	0.2	0.8	22.2	63.2	11.7	1.9	96.6
1930	0.2	2.6	25.4	59.7	9.9	2.3	96.6
1931	0.1	4.4	28.6	53.9	10.3	2.7	96.7
1932	0.1	11.4	28.5	48.0	9.0	3.0	96.8
1933	0.4	7.1	34.5	46.2	8.9	2.8	96.8
1934	0.2	4.9	38.9	45.5	9.2	2.2	96.8
1935	0.3	5.0	43.2	41.7	7.4	2.3	96.9
1936	0.3	5.7	38.7	46.7	6.5	7.1	96.9
1937	0.3	9.4	51.7	33.1	4.4	1.0	97.1
1938	0.4	11.5	50.0	31.6	4.9	1.6	97.1
1939	0.2	14.7	50.9	28.0	4.9	1.3	97.2
1940	0.1	13.7	54.2	27.4	3.5	1.1	97.2
1941	0.1	8.5	54.5	31.1	4.5	1.1	97.1
1942	0.2	5.2	56.0	33.0	4.0	1.6	97.1
1943	—	4.8	46.0	38.7	7.8	2.6	96.9
1944	—	2.2	55.0	35.0	5.1	2.6	96.9
1945	0.1	4.2	50.4	37.0	5.5	2.7	96.9
1946	—	2.8	47.7	39.8	8.2	1.5	96.9
1947	—	4.6	59.5	32.3	2.9	0.6	97.1
1948	—	3.8	57.8	33.8	3.4	1.3	97.1
1949	1.2	6.3	58.1	30.3	3.5	0.6	97.2
1950	0.6	9.7	63.7	22.7	2.6	0.7	97.3
1951	0.1	7.2	63.6	26.4	2.0	0.7	97.2
1952	0.5	7.5	65.9	24.1	1.5	0.4	97.3
1953	1.8	12.0	65.7	18.4	1.7	0.4	97.4

1/ The sum of the percentages for the different degrees of polarization may not equal 100 due to rounding in the Sugar Division, CSS, USDA.

2/ Negligible.

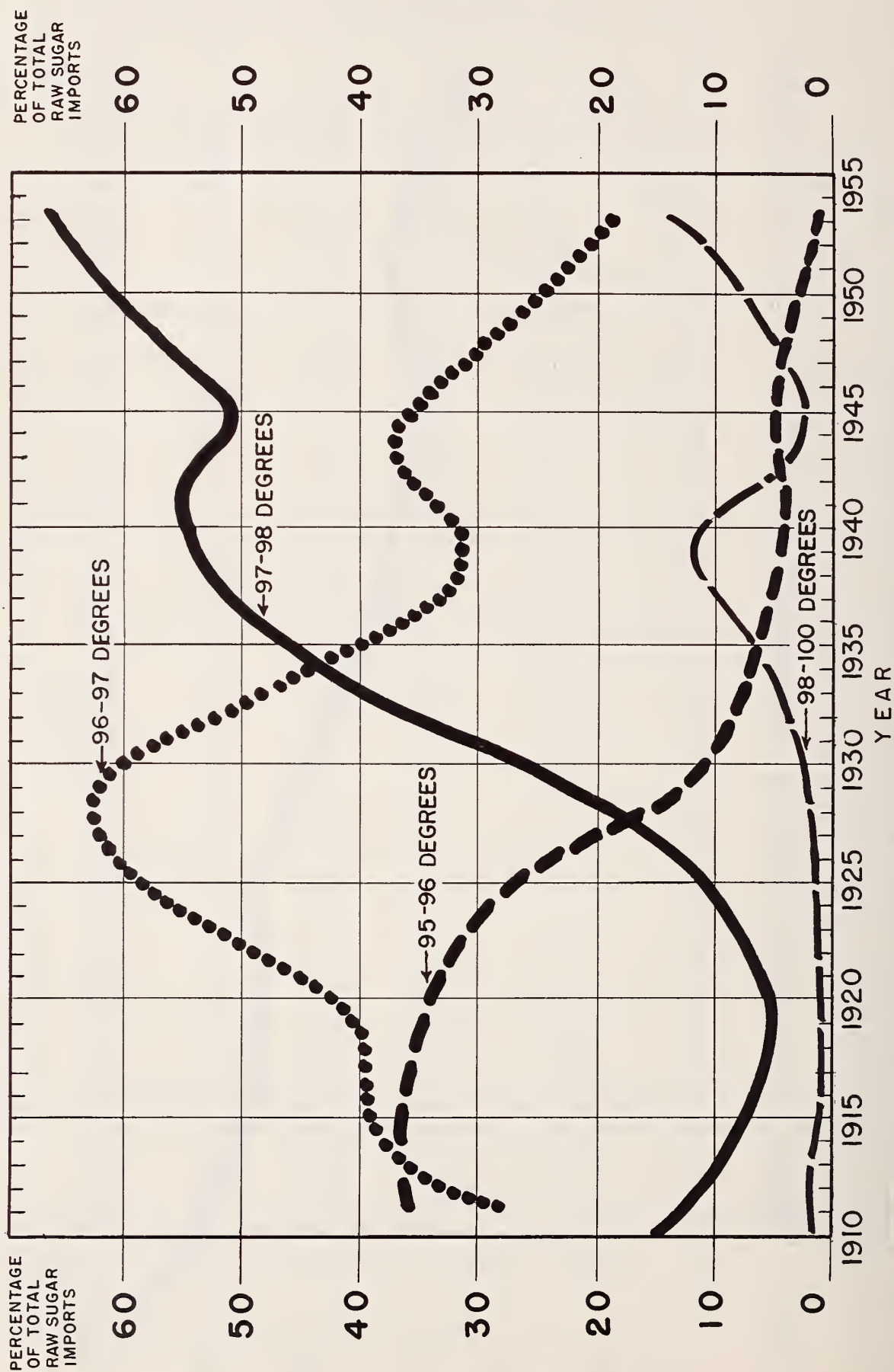
Source: The New York Sugar Trade Laboratory.

FIG. 1.: TREND OF AVERAGE ANNUAL POLARIZATION OF IMPORTED RAW SUGAR



SOURCE: FREEHAND TREND PREPARED IN SUGAR DIVISION, CSS, USDA FROM DATA OF THE NEW YORK SUGAR TRADE LABORATORY.

FIG. 2.: POLARIZATION OF RAW SUGAR IMPORTS



SOURCE: FREEHAND TREND PREPARED IN SUGAR DIVISION, CSS, USDA FROM DATA OF THE NEW YORK SUGAR TRADE LABORATORY.

The data selected for the basis of this analysis are those published by Dr. F. W. Zerban, Chief Chemist of the New York Sugar Trade Laboratory, Inc. (1,2,3). This laboratory was organized in 1907, and after the installation of constant temperature equipment in 1909, data for polarizations made under carefully controlled conditions have been published. The data for the earlier years includes small amounts of Florida and Louisiana sugars which are not included in the later years. It also includes some sugars for Canadian refiners. However, since a very large proportion of the data is for U. S. sugar imports and represent a major proportion of our imports, the data may be considered to be representative of our total imports.

The data given in Table 1 summaries the published reports of Dr. Zerban (1, 2, 3). The table includes in addition to an average annual polarization, a breakdown which shows the percentages of the samples which fall within certain polarization ranges. The annual average polarization shows a definite upward trend although there is some fluctuation at various times. In 1910 the average polarization was approximately 95° while in 1953 it had increased to more than 97° . It took approximately 14 years for the average to increase from 95° to 96° and a like period for it to increase from 96° to 97° . The rate of increase above 97° , however, has been even slower and in sixteen years it has increased only $.3^{\circ}$ from 97.1° to 97.4° . It would be expected that the closer the average polarization approaches 100° , the slower would be the rate of change because of processing and yield problems.

The trend of average polarization since 1910 is shown in Figure 1. The effects of both World War I and World War II can be seen from this graph; the general upward trend was arrested during both periods. Dr. Zerban attributes the flat situation during World War I to the shipping conditions which existed at that time. It became necessary to store sugars in the tropics for rather long periods because ships were not always available when the sugars were ready for shipment, and consequently, considerable deterioration of the sugars took place, lowering the average polarization of the raws. Similar conditions also existed during World War II. There is also some flattening out of average polarization in the early Thirties. Economic conditions existing then may have been largely responsible for that.

Probably of greater significance than the changes in average polarization are the changes which have occurred in the quantities or percentages of raw sugar which fall within certain polarization ranges. These trends are shown by the curves in Figure 2 prepared from the data in Table 1. They are smoothed out and points on the curves do not necessarily duplicate exactly the data from the table. From 1910 until 1914, raw sugars polarizing between 95° and 96° constituted the largest group (approximately 33 percent of the total). From 1914 on, however, the percentage falling in this range declined and dropped to less than 2 percent of the total in 1953. Raw sugars in the $96-97^{\circ}$ range were apparently on the increase in 1910 and increased rather rapidly to replace $95-96^{\circ}$ as the major group in 1915.

This group rose to a maximum of more than 65 percent of the samples in 1927 after which it followed the pattern of the 95-96° sugars but declined only to 18 percent in 1953.

The fourth largest group in 1910 (about 12 percent) was raw sugars in the 97-98° range. This group declined in size during the war years and for a few years afterward to a low of 4 percent in 1922. The trend turned upward at that time and continued to increase about as rapidly as the 95-96° and 96-97° groups decreased. It has surpassed the maximum reached by the 96-97° sugars and is probably near its maximum, although it will probably continue to increase slowly for several years.

In the range above 98°, several factors have influenced the percentages of these sugars in the reports of Dr. Zerban. During the earlier period small quantities (usually less than 4 percent) of such sugars were tested and these generally represented Hawaiian and Louisiana sugars. Consequently, when refining of these sugars were more or less confined to Louisiana and California, samples were no longer received by the New York Sugar Trade Laboratory and the group was insignificant for several years. Apparently there was very little production of such sugars in other countries at that time. In 1932, however, there was a significant quantity of these sugars imported and even though the quantity fell off the following year, an upward trend had started. Substantial quantities of Hawaiian sugars were again being received on the East Coast by 1938 and the influence of these raws added to the trend. World War II sharply curtailed the amount of raws in this category, but since then, the trend has started up again. If it follows the pattern set by sugars in the other groups, more than 65 percent of our raw sugar imports in 1970 will polarize above 98°. However, there are factors which may slow this trend, such as the economy of producing the higher quality raws.

From the data available here, it is not possible to determine whether the Jones-Costigan Act and the Sugar Act had any effect on the trend in the sugars polarizing about 98°. Probably, the trend is a result of many factors. The Sugar Act may have contributed to it by adding stability to the industry and thus making it possible for raw sugar producers to see their way clear to invest in equipment to improve raw sugar production. Engineering advances, such as improved centrifugals, definitely contributed to the trend. The stability may also have contributed to the continued improvement of sugarcane varieties which combined with improved production facilities has promoted the production of higher quality raws; the desire of cane sugar refiners to obtain raws which handle better in the refinery has undoubtedly encouraged the increasing quantities of higher polarizing raw sugars. Among other things, increased operating costs have probably led refiners to demand better raws in order to promote efficiency of production. It is not possible to relate the changes in the pattern of raw sugar

polarizations to any one factor with the data at hand, and it is very likely that the trends are the results of several factors operating simultaneously.

In view of the trend toward higher polarizing raw sugars, we might well ask the questions: What is the upper limit of the trend? What effect does it have on the industry in general? What will be the boundary line between raw and direct-consumption sugars?

Theoretically, the upper limit to the trend in polarization would be the limit set by our engineering knowledge and skill. However, there are more practical barriers to the trend than engineering development. Among these barriers are such things as costs of production and returns from the higher quality raws. As raws approach 100°, the problem of sacrificing yield will become relatively important. In order to produce very high polarizing raws, some sugar will be sacrificed to molasses, the price of which does not compare favorably with the price of sugar. Also there is a limit to the demand for quality on the part of refiners. Although quality is desirable to them, it is not possible for them to pay an unlimited price for this quality. Consequently, the limit of the trend will probably be established by the economics of the problem.

Effects on the industry in general are not easily evaluated and are probably related to economies in raw sugar processing and refining. The trend, however, should have a tendency to promote increased efficiency in both segments of the industry. It permits the raw sugar mill to develop processing techniques to an economic limit, and at the same time delivers a product to the refiner which permits him to realize a greater capacity in his plant.

Perhaps, the most controversial effect of the trend will be that of its effect on the physical distinction between raw and direct-consumption sugars. In the past polarization alone usually has provided a sufficient distinction between the two. Now, however, that test is beginning to lose its significance. In 1941, the Food and Drug Administration (4) published a report on the analyses of direct-consumption sugars which were being utilized by some industrial users of sugar. The range of polarization for the several typical direct-consumption sugars, i.e., washed sugars, plantation whites, turbinados, and clarified sugars, was from 97.4° to 99.9°. Raw sugars are already averaging 97.4° and some have passed into the 99° range. Consequently, the adequacy of polarization as a test to separate raw sugar from direct-consumption sugars is becoming doubtful. Other tests, of course, can be used, but as the raws approach closer and closer to 100°, the validity of most of the other tests will likewise be lessened.

REFERENCES:

- (1) F. W. Zerban, Facts about Sugar 25, 438 (1936)
- (2) F. W. Zerban, Sugar 36, No. 12, 28 (1941)
- (3) F. W. Zerban, Weekly Statistical Sugar Trade Journal 64 to 78 (See annual report of New York Sugar Trade Laboratory, Inc.).
- (4) Taken from a mimeographed report prepared by the Food and Drug Administration, Federal Security Agency, April 1941.

DEVELOPMENTS IN LIQUID SUGAR

When the liquid sugar industry started developing during the first quarter of this century, it is doubtful that anyone completely visualized the extent to which it would grow. Originally, the industry converted raw sugar into a sirup which was used by certain industrial users of sugar. For many years it remained a specialty product. Also, it is doubtful that when liquid sugar was first imported into this country as a raw material, much national attention was focused on the savings made possible by handling sugar in a bulk liquid form but was directed, rather, to the fact that there were certain tariff advantages to be obtained by importing liquid sugar. These sugars were imported only from Cuba and the Dominican Republic, and little thought was given to the possibility that liquid sugar production would develop in our off-shore domestic sugar producing areas.

Only after the enactment of the Jones-Costigan Act and the Sugar Act did liquid sugar become stabilized as a type of sugar rather than a specialty product. At the time these Acts were written, imported liquid sugar was mostly a raw product which required further refining. The possibility that refined liquid sugar might be shipped into the country evidently received little attention, or else attention was focused more on establishing a satisfactory dividing line between liquid sugar and molasses and sugarcane sirup. Since then it has been demonstrated that refined invert liquid sugars can be satisfactorily shipped from country of origin to the United States with little or no deterioration in quality. Consequently, both raw and refined liquid sugar are now imported. Research work has been undertaken to develop methods for shipping both raw and refined sucrose liquid sugars into the country. The problems connected with shipping sucrose types are greater than with inverted or partially inverted liquid sugar. In the first place lower densities must be used with the sucrose types to avoid crystallization en route, and as a result, sugar freight rates are paid on more water than for the higher density invert liquid sugars. Saturated sucrose solutions are also more susceptible to attack by micro-organisms and additional care must be taken to avoid this type of deterioration. Furthermore, nearly neutral conditions must be maintained in the solution to avoid inversion of the sucrose. All of these factors tend to increase the difficulty of shipping sucrose liquid sugars from off-shore areas. However, there is no doubt that technology eventually can solve the problems connected with shipping sucrose liquid sugar.

Currently, then, we are confronted with two developments in liquid sugar which evidently were not visualized at the time the first Sugar Act was written. These are: (1) The handling of liquid sugar has developed into a full scale bulk handling method similar to the handling of dry sugar in bulk form. Instead of the clam shells and conveyor systems which are used for dry sugar, the

bulk conveyors for liquid sugar are pumps and pipe lines. (2) Liquid sugar is now imported in two forms - raw and refined. These developments then may suggest the desirability of reviewing the entire liquid sugar situation.

SWEETENER USE IN PROCESSED FRUITS AND VEGETABLES

The production of processed fruits and vegetables other than dried fruits, baby foods, fruit nectars, and certain specialty items in the continental United States averaged 17 billion pounds during the three years ending 1952-53. Per capita production during that period averaged 110 pounds (Table 2).

Most fruits and many vegetables contain natural sugars; but sweetener, mostly cane and beet sugar, was added to about 70 percent of the entire pack and the average added sweetener content was 11 percent of the sweetened portion of the pack. Thus, the fruit and vegetable processing industries used about 1.3 billion pounds of sweetener during each of the last three years. Indications are that about 90 percent of this sweetener was cane and beet sugar. This is nearly 1.2 billion pounds of sugar, equivalent to about 650,000 shorttons, raw value, and to about 8 percent of average annual primary sugar distribution during the calendar years 1950 through 1952. The term sugar as hereafter used in this analysis refers to all added sweeteners.

Sugar is added to improve flavor or palatability, to effect coloration, to prevent fermentation or undesired changes in the cellular structure of the product, or to effect the specific gravity of the pack.

Processed fruits and vegetables constitute a very heterogeneous group of products. Six subgroups are distinguished in this analysis. In order of decreasing sugar content per unit, these subgroups are: (1) fruit spreads including preserves, jams, jellies, marmalades, and fruit butters; (2) frozen fruits and fruit juices; (3) frozen rhubarb (the only frozen vegetable using added sugar); (4) canned fruits and fruit juices; (5) related products including catsup, sauces, soups, pork and beans, mayonnaise, salad dressings, pickles, and pickle products; and (6) canned vegetables. Fruit spreads have averaged 52 to 53 percent sugar content in recent years; the entire output is sweetened. Within the subgroups there is a wide range of sugar content. Marmalade, containing 67 percent of sugar, tops all other products. Frozen fruits and fruit juices, if sweetened, contain 21 percent of sugar on the average. In 1947 and 1948 only about 10 percent of the entire pack of frozen fruits and vegetables contained no sugar; however, in 1952-53, due to the rise in frozen orange juice production, the unsweetened portion of the pack increased to almost 60 percent.

Table 2. - Processed fruits and vegetables

Season Beginning	With Added Sweetener		Without Added Sweetener	Total	Sweetener		Without Added Sweetener	Total
	million pounds	percent	million pounds	million pounds	million pounds	percent	million pounds	million pounds
	Canned vegetables and vegetable juices							
1947	1,806	1.7	2,499	4,305				
1948	1,681	1.8	3,072	4,753				
1949	1,667	1.8	3,051	4,718				
1950	1,519	1.6	3,351	4,870				
1951	1,857	1.7	3,859	5,716				
1952	1,891	1.8	3,027	4,918				
	Frozen vegetables							
1947	2 2/	17.0 3/	334	336				
1948	3 3/	17.0 3/	423	426				
1949	4 3/	17.0 3/	523	527				
1950	6 3/	17.0 3/	537	543				
1951	6 3/	17.0 3/	702	708				
1952	6 3/	17.0 3/	804	810				
	Fruit spreads 1/							
1947	671	51.7	0	671				
1948	537	52.8	0	537				
1949	536	52.6	0	536				
1950	624	52.2	0	624				
1951	625	52.7	0	625				
1952	648	52.3	0	648				
	Total of the 6 groups							
1947	11,212	11.0	3,268	14,480				
1948	10,778	10.8	3,939	14,717				
1949	10,644	10.7	4,274	14,918				
1950	11,434	10.9	4,847	16,281				
1951	12,143	11.0	5,545	17,688				
1952	12,131	11.0	4,994	17,125				
	Canned fruits and fruit juices							
	million pounds	percent	million pounds	million pounds				
1947	4,053	9.2	399	4,452				
1948	3,610	9.4	401	4,011				
1949	3,545	9.8	565	4,110				
1950	3,954	9.5	637	4,591				
1951	3,919	10.6	597	4,516				
1952	3,601	10.4	572	4,173				
	Frozen fruits and fruit juices							
1947	317	20.8	36	353				
1948	360	20.7	43	403				
1949	348	20.8	135	483				
1950	455	20.8	322	777				
1951	409	20.7	387	796				
1952	412	21.2	591	1,003				
	Related products 2/							
1947	4,363	9.4	0	4,363				
1948	4,587	9.5	0	4,587				
1949	4,544	8.9	0	4,544				
1950	4,876	8.8	0	4,876				
1951	5,327	9.0	0	5,327				
1952	5,573	8.9	0	5,573				
	Per Capita Production							
	Population 3/ (Thousands)			(Pounds)				
1947	144,126			100.5				
1948	146,631			100.4				
1949	149,188			100.0				
1950	151,677			107.3				
1951	154,360			114.6				
1952	156,981			109.1				

1/ Fruit spreads include preserves, jams, jellies, marmalade, and fruit butters; 2/ "Related products" include catsup, sauces, soups, pork and beans, mayonnaise, salad dressing, mincemeat, and pickles and pickle products containing added sweeteners; 3/ Frozen rhubarb only; 4/ Population Continental United States, July 1, excluding armed forces overseas.

Source: Production: For canned fruits and vegetables, data of the National Canners Association, and of the A.M.S., U.S. Department of Agriculture, converted into pounds in the Sugar Division CSS, U.S.A.; for frozen fruits and vegetables, data of the National Association of Frozen Foods Packers; for fruit spreads, data of the Business and Defense Services Administration, U. S. Department of Commerce; for related products data are from various sources, in some cases data were estimated on the basis of 1947 census and other information. The added sweetener content is the product of the output and the estimated percentage of added sweetener for each individual commodity.

Frozen vegetables contain no sugar, except rhubarb which forms less than 1 percent of the pack and contains 17 percent sugar. Canned fruits and fruit juices, if sweetened, contain about 10 percent sugar. Only about 15 percent of the pack is unsweetened. All "related products" contain sugar and their sugar content averages 9 percent. About two thirds of the vegetable pack is unsweetened; the remaining third of the canned vegetable pack averages somewhat less than 2 percent sugar. Green peas and sirup-packed sweet potatoes with only 1.25 percent of sugar content have perhaps the smallest added sweetener content of all sweetened products included in this analysis.

The "related products" subgroup requires by far the most sugar among the six subgroups, about 37 percent of all sugar used by the industry in 1952-53. The canned fruit industry took 28 percent and fruit spreads required 25 percent of the total. This left about 10 percent for the three other subgroups - frozen fruits, canned vegetables, and frozen rhubarb (Table 3).

Table 3.- Added sweeteners used in processed fruits and vegetables
1952-53

Product group	Added sweeteners used	
	Quantity 1/ 1000 pounds	Percent
Canned vegetables 2/	33,338	2.5
Canned fruits 2/	373,897	28.0
Frozen vegetables 3/	966	0.1
Frozen fruits 2/	87,384	6.6
Fruit spreads	339,172	25.4
Related products	497,843	37.4
Total	1,332,600 4/	100.0

1/ The quantities are the product of the production and the estimated added sweetener content for each individual commodity.

2/ Includes applicable juices and berries.

3/ Rhubarb only.

4/ Probably about 90 percent of this was sugar.

Most processed fruits and vegetables are packed immediately after harvest in the area where grown. Only some of the products, such as fruit spreads, can be processed outside of the area where the fruit is grown and throughout most or all of the year. Most processed fruits and vegetables require long hauls from their specialized production areas to the large population centers and, since

consumption tends to be more or less evenly distributed throughout the year, part of the pack requires extended storage from the packing season until consumed.

Sugar accounts for only a very small fraction of the cost or the wholesale price of the products containing added sugar in this group of industries. Unweighted sample data relating to seven selected vegetables and fruits ^{1/} for the seasons of 1948 and 1949 indicate that raw produce averaged about 34 percent of all costs, cans about 15 percent, direct labor about 12 percent, shipping cases, warehousing, and indirect operating costs about 20 percent, selling, administration, and/or general costs about 12 percent, and sugar and condiments about 7 percent (Figure 3).

If sugar cost is expressed relative to the wholesale or factory price, the cost of sugar in 1953 was not more than 5 percent for approximately three-fifths of the total output of all sugar containing products in this group of industries. For about 92 percent of the output sugar cost was not more than 10 percent (Table 4). ^{2/}

Table 4.- Processed fruits and vegetables; relative costs of added sweetener, 1952-53 *

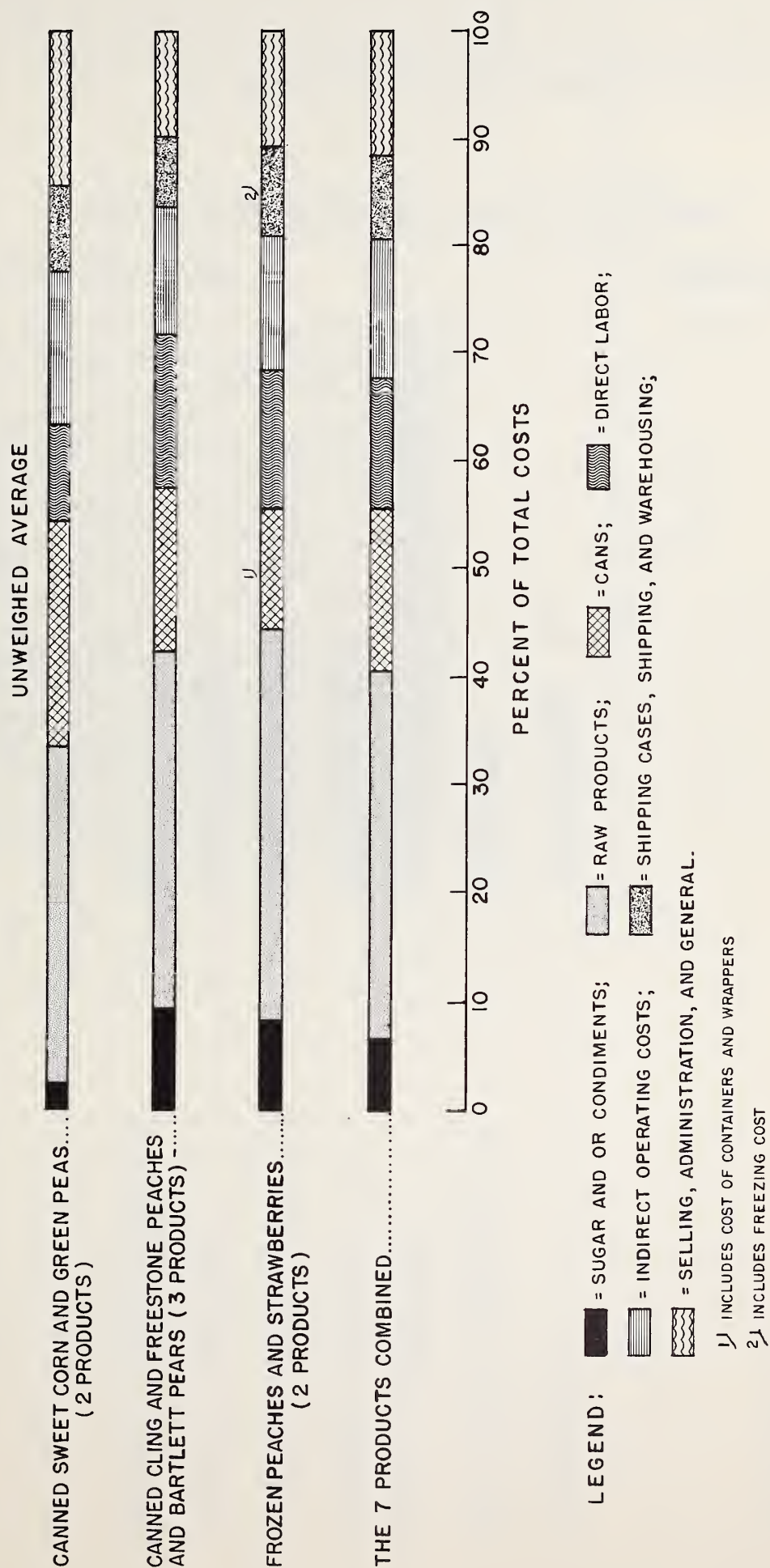
Ration, costs of added sweetener to wholesale or factory prices of products (percent)	Percentage of total production of products containing added sweetener		Percentage of total added sweetener used	
	percent	Cumulative percent	percent	Cumulative percent
5.0 or less	59.4		14.2	
5.1 to 10.0	33.0	92.4	53.5	67.7
10.1 to 15.0	2.7	95.1	10.9	78.6
15.1 to 20.0	1.2	96.3	2.2	80.8
20.1 to 25.0	2.7	99.0	14.8	95.6
25.1 to 30.0	1.0	100.0	4.4	100.0

* Processed fruits and vegetables other than dried fruits, baby foods, fruit nectars, and certain specialty items. Production of products and quantity of added sweeteners used are for 1952 or 1952-53; wholesale or factory prices are for 1953.

^{1/} The products included are for canned vegetables: sweet corn and green peas; for canned fruits: cling peaches, freestone peaches, and bartlett pears; and for frozen fruits: peaches and strawberries. For details, see "The Marketing and Transportation Situation," BAE, United States Department of Agriculture, MTS-96, May 1951. The original study related to the percentage of the factory sales value represented by various components, including profit or loss. The figures used here were computed in the Sugar Division, Commodity Stabilization Service, USDA, by adjusting the sales value so as to include only the items of cost.

^{2/} These percentages of sugar costs to wholesale or factory prices were computed in Sugar Division, CSS, USDA.

FIG. 3.: COSTS TO MANUFACTURERS OF SELECTED CANNED AND FROZEN VEGETABLES AND FRUITS, UNWEIGHTED AVERAGE 1948 AND 1949



Sugar cost is about 17 percent of the wholesale or factory price of fruit spread, 13 percent of frozen rhubarb (the only frozen vegetable using sugar), 6 to 7.5 percent of canned and frozen fruits, and "related products," and about 1.5 percent of the wholesale or factory price of canned vegetables (Figure 4).

SUGAR ACT OF 1948 -- ADMINISTRATIVE ACTIONS

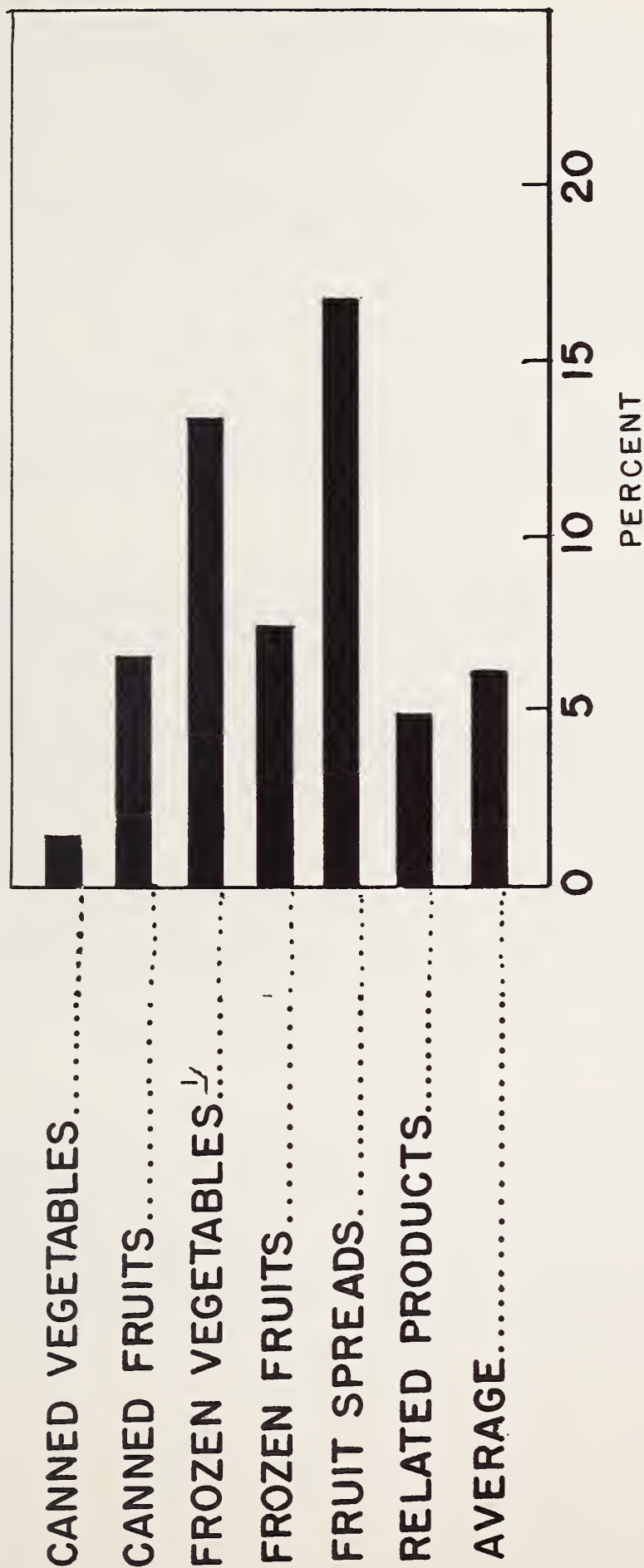
Date announced

Administrative Action

May 19, 1954

Establishment of minimum wage rates for Hawaiian sugarcane field workers in 1954 and subsequent years. Rates to be those agreed upon between producers and workers. In Hawaii the vast majority of field workers are employed under collective bargaining agreements. The most recently negotiated agreements, which run until January 31, 1956 provide an average minimum base wage of about \$1.16 per hour; however, it is estimated that average earnings plus incentives and fringe benefits, of workers in 1954 will approximate \$1.80 per hour. This determination based on wage rates as agreed upon between producers and workers will be in effect from January 1, 1954 until amended, superseded or terminated.

FIG. 4. : ADDED SWEETENER COST AS A PERCENTAGE
OF WHOLESALE PRICE OF SWEETENED PRODUCTS



↓/RHUBARB ONLY

STATISTICAL SERIES IN THIS ISSUEHIGHLIGHTS

1. Deliveries of sugar by primary distributors for U. S. consumption during April, 1954 were 571,000 tons as compared to 591,000 tons during April 1953; for the first four months such deliveries were 2,448,000 this year as compared to 2,589,000 last year.
2. Stocks held by primary distributors on May 1, 1954 were 1,668,000 tons compared to 1,350,000 tons on April 30, 1953; the stocks of each group of distributors increased.
3. Deliveries of sugar by types of buyers were about 11 percent higher during the fourth quarter of 1953 than during the same quarter of 1952; for the year 1953 such deliveries were about 4 percent higher than in 1952.

During the fourth quarter of 1953, sugar deliveries to hotels, restaurants and institutions were about 56 percent higher than during the comparable period of 1952; to manufacturers of canned, bottled and frozen foods and jams, jellies and preserves, about 20 percent higher; and to beverage manufacturers, 4 percent higher. Deliveries to all other groups decreased, with deliveries to producers of multiple and other food uses down about 53 percent and to producers of non-food products down about 17 percent. Total deliveries to each geographic area increased, the largest relative increase (about 24 percent) occurring in the north central states.

For the calendar year 1953 deliveries of sugar to all groups of buyers except wholesale grocers, jobbers and sugar dealers were higher than in 1952, the increase ranging from 0.3 percent to manufacture of non-food products to about 15 percent for bakery, cereal and allied products. Deliveries to each geographic area increased, the largest increase (about 7 percent) occurring in the west, and the smallest (0.7 percent) in the south.

4. Total dextrose sales during the calendar year 1953 were approximately 4 percent higher and in the fourth quarter approximately 2 percent higher than in 1952. In the west the increase was 20 percent during the fourth quarter, but only about 1 percent for the year as a whole. The largest decrease, about 5 percent for the fourth quarter and 8 percent for the year, occurred in the new england states.
5. Deliveries of corn sirup both for the fourth quarter and for the year 1953 were approximately 3 percent higher than a year earlier. For the year as a whole the largest increase (about 11 percent) was in deliveries to producers of ice cream and dairy products; the largest decline, (about 11 percent) occurred in deliveries to wholesale grocers, jobbers and sugar dealers.
6. The charges against sugar quotas during the first four months of 1954 were approximately 120,000 tons less than during the comparable period of 1953. Charges against the quota for the beet sugar area were approximately the same in both years, the decrease occurring in the charges against the quotas for most of the cane sugar areas. Charges against the 1954 quotas to May 15 totaled 3.3 million tons; comparable data for 1953 are not available.
7. Some revisions in deliveries of sugar by states during 1953 have been made (Table 24), since the preparation of Sugar Reports No. 24.

Table 5 .- Distribution of sugar by primary distributors in the continental United States, Puerto Rico, and Hawaii during January-March 1954 and 1953

	<u>1954</u> (Short tons, raw value)	<u>1953</u> (Short tons, raw value)
<u>Continental United States</u>		
Refiners' raw sugar	379	707
Refiners' refined sugar	1,399,206	1,465,818
Beet sugar processors	351,085	361,665
Importers' direct-consumption sugar	100,236	132,219
Mainland cane mills direct-consumption sugar	<u>32,180</u>	<u>42,599</u>
Total	1,883,086	2,003,008
Deliveries for export	5,354	4,658
For continental consumption*	1,877,732	1,998,350
<u>Puerto Rico</u>	25,788	17,092
<u>Hawaii</u>	10,808	10,000

* Includes deliveries for United States military forces at home and abroad.

Table 6 .- Stocks of sugar held by primary distributors in the continental United States, March 31, 1954 and 1953

	<u>1954</u> (Short tons, raw value)	<u>1953</u> (Short tons, raw value)
Refiners' raw	177,509	164,110
Refiners' refined	214,899	229,646
Beet sugar processors	911,599	835,693
Importers' direct-consumption sugar	54,050	38,501
Mainland cane mills	<u>121,278</u>	<u>29,106</u>
Total	1,479,335	1,297,056

Table 7 .- Raw sugar: Refiners' stocks, receipts and meltings,
January - March 1954

	: Stocks :	:	:	: Deliveries :	: Stocks
Source of	: Jan. 1, :	:	:	: for direct	: March 31,
supply	: 1954 :	: Receipts :	: Meltings :	: consumption :	: 1954
(Short tons, raw value)					
Continental raws (see "Mainland cane")					
Cuba	17,905	786,070	722,837	119	81,019
Hawaii	59,041	138,549	164,949	-	32,641
Mainland cane	67,819	106,895	157,507	118	17,089
Philippines	29,250	181,231	192,736	48	17,697
Puerto Rico	13,414	172,224	156,481	94	29,063
Virgin Islands	0	2,259	2,259	-	0
Other countries	512	2,467	2,979	-	0
Miscellaneous	0	18	18	-	0
Total	187,941	1,389,713	1,399,766	379	177,509

Source: Compiled from reports submitted on Form SU-15A by cane sugar refiners.

Table 8 .- Refined sugar: Refiners' and processors' stocks, production and deliveries, January-March 1954

	<u>Cane sugar</u>	<u>Beet sugar</u>
	(Short tons, raw value)	
Stocks January 1, 1954	217,064	1,125,256
Production	1,396,920	137,387
Received from other primary distributors	2,111	1,375
Deliveries for consumption	1,399,206	351,085
Deliveries to other primary distributors	1,990	1,334
Stocks March 31, 1954	214,899	911,599

Source: Compiled from reports submitted on Form SU-16A and SU-11C by cane sugar refiners and beet sugar processors.

Table 9 .- Direct-consumption sugar: Importers' stocks, receipts and deliveries January-March 1954

	Stocks Jan.1,	:	:	:	Stocks March
Source of supply	1954	:	Receipts	: Deliveries	: 31, 1954
			(Short tons, raw value)		
Cuba	2,780		107,631	70,887	39,524
Hawaii	2,194		3,111	3,856	1,449
Other countries	6,076		11,099	9,768	7,407
Philippines	322		315	600	37
Puerto Rico	<u>-</u>		<u>20,758</u>	<u>15,125</u>	<u>5,633</u>
Total	11,372		142,914	100,236	54,050

Source: Compiled from reports on Form SU-15B submitted by importers of direct-consumption sugar.

Table 10.- Mainland cane mills' stocks, production and deliveries,
January-March 1954 (Preliminary)

	(Short tons, raw value)
Stocks January 1, 1954	143,549
Production	85,390
Deliveries	
For further processing	75,481
For direct consumption	32,180
Total	107,661
Stocks March 31, 1954	121,278

Source: Compiled from reports submitted by mainland sugarcane processors and processor-refiners.

Table 11.- Distribution of sugar by primary distributors in the continental United States, April and January-April, 1954 and 1953

	1954 1/		1953	
	April	Jan.-April	April	Jan.-April
	(Short tons, raw value)			
Refiners	381,719	1,781,304	400,429	1,866,954
Beet processors	140,902	491,987	131,786	493,451
Importers	48,546	148,782	51,571	183,790
Mainland cane mills	2,359	34,539	8,869	51,468
Total	573,526	2,456,612	592,655	2,595,663
Deliveries for export	2,841	8,195	1,582	6,240
For continental consumption 2/	570,685	2,448,417	591,073	2,589,423

1/ Preliminary.

2/ Includes deliveries for U. S. military forces at home and abroad.

Table 12.- Stocks of sugar held by primary distributors in the continental United States, May 1, 1954, and April 30, 1953

	May 1, 1954 1/	April 30, 1953
	(Short tons, raw value)	
Refiners' raw	338,348	245,114
Refiners' refined	321,676	311,356
Beet processors	822,545	718,149
Importers	63,959	56,190
Mainland cane mills	121,278 2/	19,493
Total	1,667,806	1,350,302

1/ Preliminary.

2/ Not available; estimated same as March 31, 1954.

Table 13.- Sugar deliveries by type of product or business of buyer and by type of sugar, fourth quarter 1953 1/

United States				
Product or Business of Buyer	Beet	Cane	Imported D. C.	Liquid 2/
		100 pound bag refined		Total Sugar
Bakery, cereal and allied products	1,384,328	2,116,650	62,664	238,658
Confectionery and related products	1,248,462	2,021,930	197,601	600,684
Ice cream & dairy products	264,308	446,184	16,184	350,653
Beverages	938,135	1,580,755	68,733	1,119,068
Canned, bottled, frozen foods; jams, jellies & preserves	757,935	851,285	197,362	620,700
Multiple and all other food uses	304,412	793,260	3,786	396,390
Non-food products	2,357	139,347	5,229	28,526
Hotels, restaurants, institutions	16,589	126,624	100	1,529
Wholesale grocers, jobbers, sugar dealers	2,972,417	9,478,234	215,846	33,578
Retail grocers, chain stores, super markets	730,939	4,447,553	54,438	9,452
All other deliveries including deliveries to Government agencies	125,902	510,183	1,380	237
TOTAL DELIVERIES	8,745,784	22,512,005	823,323	3,399,475
Deliveries in consumer size packages (less than 100 lbs.)	1,396,192	8,460,781	91,737	---

1/ Represents approximately 94 percent of deliveries by primary distributors in continental United States.
 2/ Refined equivalent.

Source: Reports of primary distributors of sugar to Sugar Division, CSS

Table 14.- Sugar deliveries, by type of product or business of buyer, fourth quarter 1953 and percentage change from fourth quarter 1952

Product or Business of Buyer	United States	New England	Middle Atlantic	North Central	South	West
	100 pound bag equivalent					
Bakery, cereal and allied products	3,802,300	136,229	1,139,188	1,224,675	680,743	621,465
Confectionery and related products	4,068,677	394,967	1,551,101	1,657,912	259,267	205,430
Ice cream and dairy products	1,077,329	55,853	330,264	354,031	184,502	152,679
Beverages	3,706,691	109,557	861,047	827,888	1,346,247	561,952
Canned, bottled, frozen foods; jams, jellies, preserves, etc.	2,427,282	180,071	553,795	443,561	515,018	734,837
Multiple and all other food uses	1,497,848	27,329	714,021	520,714	89,589	146,195
Non-food products	175,459	3,986	79,805	30,862	60,618	188
Hotels, restaurants, institutions	144,842	19,891	79,107	14,687	14,891	16,266
Wholesale grocers, jobbers, sugar dealers	12,700,075	663,188	1,787,013	4,708,577	3,927,953	1,613,344
Retail grocers, chain stores, super markets	5,242,382	408,184	1,285,831	1,458,238	1,437,557	652,572
All other deliveries, including deliveries to Government agencies	637,702	16,063	154,619	59,242	154,741	253,037
TOTAL DELIVERIES	35,480,587	2,015,318	8,535,791	11,300,387	8,671,126	4,957,965

	Percentage change from fourth quarter 1952					
Bakery, cereal and allied products	+13.7	- 0.3	+15.5	+ 9.6	+ 9.2	+29.2
Confectionery and related products	+18.1	- 7.9	+ 5.2	+71.4	-28.2	- 4.5
Ice cream and dairy products	+16.1	- 3.0	+38.7	+15.4	+15.2	- 7.6
Beverages	+24.1	+ 4.0	+ 4.2	+49.3	+11.3	+93.4
Canned, bottled, frozen foods; jams, jellies, preserves, etc.	+13.5	+20.4	+ 2.6	+16.3	+ 8.5	+23.8
Multiple and all other food uses	+16.3	-37.7	+ 2.6	+54.6	+ 7.2	+15.0
Non-food products	-10.6	-16.7	+27.1	-55.9	+ 4.0	-58.9
Hotels, restaurants, institutions	+11.8	+55.8	+ 1.8	+31.0	-13.1	+51.4
Wholesale grocers, jobbers, sugar dealers	+ 5.7	- 1.5	+ 0.2	+19.1	- 2.1	+ 1.2
Retail grocers, chain stores, super markets	+ 6.9	- 1.6	+ 3.5	+ 6.8	+10.2	+13.2
All other deliveries, including deliveries to Government agencies	- 3.4	- 1.2	+23.9	-17.7	- 9.6	- 8.3
TOTAL	+10.7	- 1.4	+ 6.0	+23.7	+ 2.3	+14.5

Table 15.- Sugar deliveries by type of product or business of buyer and by type of sugar 1/
Calendar Year 1953

United States

Product or Business of Buyer	Beet	Cane	Imported D. C.	Liquid 2/	Total Sugar
	100 pound bag equivalent				
Bakery, cereal and allied products	4,766,585	8,732,412	1,365,358	786,629	15,650,984
Confectionery and related products	3,214,471	6,870,090	1,548,277	2,320,731	13,953,569
Ice cream and dairy products	1,244,091	2,275,184	312,185	1,790,846	5,622,306
Beverages	2,220,131	7,561,926	1,494,877	4,983,371	16,260,305
Canned, bottled, frozen foods; jams, jellies and preserves	3,749,595	3,400,249	1,495,423	3,677,458	12,322,725
Multiple and all other food uses	887,165	3,115,884	153,495	1,802,849	5,959,393
Non-food products	15,823	516,790	286,907	98,370	917,890
Hotels, restaurants, institutions	46,612	484,667	22,375	20,919	574,573
Wholesale grocers, jobbers, sugar dealers	10,651,851	42,317,580	2,979,812	224,131	56,173,374
Retail grocers, chain stores, super markets	3,109,509	18,548,010	279,449	45,558	21,982,526
All other deliveries including deliveries to Government agencies	293,777	2,413,707	9,887	1,444	2,718,815
TOTAL DELIVERIES	30,199,610	96,236,499	9,948,045	15,752,306	152,136,460
Deliveries in consumer size packages (less than 100 lbs.)	6,544,768	40,609,629	478,277	—	47,632,674

1/ Represents approximately 96 percent of deliveries by primary distributors in continental United States.
2/ Refined equivalent.

Source: Reports of primary distributors of sugar to Sugar Division, CSS.

Table 16.- Sugar deliveries, by type of product or business of buyer
Calendar Year 1953

Product or Business of Buyer	United States	New England	Middle Atlantic	North Central	South	West
	100 pound bag equivalent					
Bakery, cereal and allied products	15,650,984	584,214	4,557,853	5,101,388	3,179,133	2,228,396
Confectionery and related products	13,953,569	1,415,340	6,420,013	4,407,369	968,904	741,943
Ice cream and dairy products	5,622,306	294,847	1,658,343	1,751,130	1,107,721	810,265
Beverages	16,260,305	626,363	4,031,954	3,431,100	6,427,187	1,743,701
Canned, bottled, frozen foods; jams jellies, preserves, etc.	12,322,725	514,950	2,427,932	2,247,929	1,992,037	5,139,877
Multiple and all other food uses	5,959,393	207,925	2,850,963	1,854,065	390,122	656,318
Non-food products	917,890	15,203	298,181	104,487	496,587	3,432
Hotels, restaurants, institutions	574,573	84,150	319,586	55,989	63,885	50,963
Wholesale grocers, jobbers, sugar dealers	56,173,374	2,743,661	8,160,770	19,518,828	18,737,220	7,012,895
Retail grocers, chain stores, super markets	21,982,526	1,608,774	5,244,979	6,151,527	6,112,540	2,864,706
All other deliveries, including deliveries to Government agencies	2,718,815	57,178	579,913	215,518	645,415	1,220,791
TOTAL DELIVERIES	152,136,460	8,152,605	36,550,487	44,839,330	40,120,751	22,473,287
	Percentage change from calendar year 1952					
Bakery, cereal and allied products	+14.9	- 0.3	+14.0	+12.1	+22.0	+18.8
Confectionery and related products	+ 7.9	- 4.0	+ 8.3	+20.4	- 9.5	- 7.2
Ice cream and dairy products	+ 1.5	-11.9	+14.5	-11.0	+14.5	- 1.5
Beverages	+ 5.8	- 0.4	- 0.9	+28.4	- 2.3	+23.0
Canned, bottled, frozen foods; jams jellies, preserves, etc.	+12.5	+12.8	+14.8	+ 7.0	+12.8	+13.8
Multiple and all other food uses	+13.9	+13.5	- 0.8	+50.4	+11.5	+11.1
Non-food products	+ 0.3	- 6.0	+27.8	-30.4	- 3.3	+30.5
Hotels, restaurants, institutions	+10.3	+44.2	+ 7.9	+ 7.3	- 9.1	+14.4
Wholesale grocers, jobbers, sugar dealers	- 1.5	- 1.8	+ 0.8	- 0.2	- 3.4	- 2.1
Retail grocers, chain stores, super markets	+ 2.4	- 1.3	+ 2.9	- 2.0	+ 6.3	+ 6.0
All other deliveries, including deliveries to Government agencies	+ 2.6	- 5.4	+18.4	- 2.0	-18.7	+12.3
TOTAL	+ 4.1	- 0.9	+ 5.5	+ 5.6	+ 0.7	+ 6.9

Table 17.-Deliveries of cane and beet sugar by primary distributors in consumer size packages (less than 100 pounds), fourth quarter, and calendar year 1953

<u>Area</u>	<u>Cane Sugar</u> (- - - cwt. refined - - -)	<u>Beet Sugar</u>	<u>Total</u>
<u>Fourth quarter 1954</u>			
United States	8,552,518	1,396,192	9,948,710
New England	402,569		402,569
Middle Atlantic	1,282,820		1,282,820
North Central and West,combined*	3,485,422	1,353,365	4,838,787
South	3,381,707	42,827	3,424,534
<u>Calendar year 1954</u>			
United States	41,087,906	6,544,768	47,632,674
New England	2,497,084		2,497,084
Middle Atlantic	7,825,895		7,825,895
North Central and West,combined*	15,540,933	6,357,188	21,898,121
South	15,223,994	187,580	15,411,574

*Combined to avoid disclosure of individual company data. Total distribution in consumer size packages in these areas: Fourth quarter - North Central, 3,212,227, West, 1,626,560; Calendar year - North Central, 14,614,213, West, 7,283,908.

Source: Reports of primary distributors of sugar to the Sugar Division, CSS.

Table 19.- Dextrose sales, by type of product or business of buyer
Calendar Year 1953

Product of Business of Buyer	United States	New England	Middle Atlantic	North Central	South	West
	100 pound bag equivalent					
Bakery, cereal and allied products	3,828,701	119,186	725,320	1,579,142	952,829	420,224
Confectionery and related products	405,833	5,345	171,813	187,145	29,390	12,140
Ice cream and dairy products	270,869	7,710	57,049	84,756	88,748	32,606
Beverages	545,481	33,424	116,834	214,306	62,598	118,319
Canned, bottled, frozen foods; jams jellies, preserves, etc.	554,033	4,129	87,386	89,641	140,899	231,978
Multiple and all other food uses	489,964	18,202	112,660	245,240	67,084	46,778
Non-food products	611,491	43,908	152,854	164,300	243,467	6,962
Wholesale grocers, jobbers, sugar dealers, retail grocers, chain stores, super markets	224,637	7,257	16,780	104,284	40,425	55,891
All other deliveries, including deliveries to Government agencies	136,360	3,438	23,094	91,006	11,875	6,947
TOTAL SALES	7,065,369	272,599	1,463,790	2,759,820	1,637,315	931,845
	Percentage change from calendar year 1952					
Bakery, cereal and allied products	+ 0.8	-14.1	-5.5	+ 7.1	- 0.6	0
Confectionery and related products	+ 1.9	-61.8	- 2.4	+11.1	+18.5	-20.5
Ice cream and dairy products	- 9.2	-26.3	- 1.7	-20.2	+ 1.5	- .1
Beverages	+ 2.8	-10.8	- 1.1	- 1.5	-22.0	+53.4
Canned, bottled, frozen foods; jams jellies, preserves	- 1.5	-20.8	+12.1	- 6.6	+25.9	-14.5
Multiple and all other food uses	+ 3.8	+10.2	-10.0	+ 9.0	- 4.1	+31.4
Non-food products	+30.8	+52.5	+60.4	+ 3.1	+35.9	+42.9
Wholesale grocers, jobbers, sugar dealers, retail grocers, chain stores, super markets	+ 1.9	+21.4	-19.1	+ 7.9	+ 1.2	- 2.1
All other deliveries, including deliveries to Government agencies	-17.4	-36.3	+19.9	-22.8	-11.9	-24.5
TOTAL	+ 2.3	- 8.3	+ .4	+ 3.7	+ 4.6	+ .9

Table 20.- Corn sirup (unmixed) sales by type of product or business of buyer, fourth quarter 1953

	<u>UNITED STATES</u>		Change from
	Fourth quarter		4th quarter
	1953		1952
<u>Product or Business of Buyer</u>	<u>(cwt.)</u>		<u>(percent)</u>
Bakery and allied products, cereal and cereal products	330,618		-
Confectionery and related products	1,971,181		+1.8
Ice cream and dairy products	102,148		+2.3
Brewery and brewery supply houses	70,673	-8.0	
Soft drinks	<u>3,460</u>	<u>-0.1</u>	
Total beverages	74,133		+1.6
Canned, bottled, frozen foods; jams, jellies, preserves, etc.	312,333		+19.5
Blended sirups	825,835	+4.4	
Miscellaneous food products	<u>154,602</u>	<u>+7.7</u>	
Total multiple and all other products	980,437		+4.9
Non-food products	122,183		-9.7
Wholesale grocers, jobbers, sugar dealers	<u>35,233</u>		<u>-11.7</u>
TOTAL DOMESTIC SALES	3,928,266		+3.2
TOTAL DOMESTIC SALES, DRY BASIS*	3,154,398		

* Based on 43° sirup with average solids content of 80.3 percent.

Source: Corn refiners' reports to Price Waterhouse.

Table 21.- Corn sirup (unmixed) sales by type of product or business of buyer, calendar year 1953

UNITED STATES

<u>Product or Business of Buyer</u>	<u>1953</u> (cwt.)	<u>Change from</u> <u>1952</u> (percent)
Bakery and allied products; cereal and cereal products	1,243,030	/ 3.9
Confectionery and related products	7,295,048	/ 3.6
Ice cream and dairy products	504,416	/10.5
Brewery and brewery supply houses	316,526	/1.5
Soft drinks	22,723	/24.3
Total beverages	339,249	/ 2.8
Canned, bottled, frozen foods; jams, jellies, preserves, etc.	1,469,367	/ 4.8
Blended sirups	2,995,160	/2.4
Miscellaneous food products	576,217	-6.3
Total multiple and all other products	3,571,377	/ 0.9
Non-food products	500,828	/ 0.3
Wholesale grocers, jobbers, sugar dealers	130,788	-10.7
TOTAL DOMESTIC SALES	15,054,103	/ 2.9
TOTAL DOMESTIC SALES, DRY BASIS*	12,088,445	

*Assumes average solids content of 80.3 percent (43° Baumé sirup)

Source: Corn refiners' reports to Price Waterhouse.

Table 22.- Status of 1954 sugar quotas as of April 30, 1954

Area	Quotas	Credits for drawback of duty	Charges to quotas and offsets to drawback of duty	Unfilled balances	
				Total	Within direct consumption limits for off- shore areas
<u>short tons, raw value</u>					
Domestic beet	1,800,000	—	493,321	1,306,679	—
Mainland cane	500,000	—	177,401 <u>1/</u>	322,599	—
Hawaii	1,052,000	—	219,528	832,472	20,689
Puerto Rico	1,080,000	—	377,229	702,771	80,500
Virgin Islands	12,000	—	2,255	9,745	—
Republic of the Philippines	974,000	—	285,128	688,872	53,512
Cuba	2,670,720	1,680	1,201,428	1,470,972	232,654
Other foreign countries (see below)	<u>111,280</u>	<u>648</u>	<u>28,246</u>	<u>83,682</u>	<u>12,061 2/</u>
Total	8,200,000	2,328	2,784,536	5,417,792	
Foreign countries other than Cuba and Republic of the Philippines					
Dominican Republic	27,634	206	6,504	21,336)	12,061
El Salvador	4,140	—	—	4,140)	
Haiti	2,674	9	2,457	226)	
Mexico	11,458	110	6,872	4,696)	
Nicaragua	7,832	—	3,719	4,113)	
Peru	51,978	323	3,130	49,171)	
Unspecified countries (those without individual pro- rations)	<u>5,564</u>	<u>—</u>	<u>5,564 3/</u>	<u>0 4/)</u>	—
Total	111,280	648	28,246	83,682	

Liquid Sugar

Wine gallons of 72 percent total sugar content				
Cuba	7,970,558	—	4,141,346	3,829,212
Dominican Republic	830,894	—	—	830,894
British West Indies	300,000	—	—	300,000

^{1/} Jan.-Mar., 146,936; April estimated same as April 1953.

^{2/} Reported as of March 31 as 22,611; corrected quantity 15,224.

^{3/} Belgium, 337; Canada, 992; China (Formosa), 1,040; Costa Rica, 1,036; Netherlands, 1,046; Panama, 1,113.

^{4/} Applications being held awaiting availability of quota comprise (short tons, raw value): Belgium, 243; Canada, 214; China (Formosa), 6; Costa Rica, 1,354; Denmark, 1,179; Hong Kong, 12; Netherlands, 974; Panama, 1,057; total, 5,039.

Table 23.- Status of 1954 sugar quotas as of May 15, 1954

Area	Quotas	Credits for drawback of duty	Charges to quotas and offsets to drawback of duty	Unfilled balances	
				Total	Within direct consumption limits for off- shore areas
short tons, raw value					
Domestic beet	1,800,000	-	563,967 ^{1/}	1,236,033	-
Mainland cane	500,000	-	185,212 ^{2/}	314,788	-
Hawaii	1,052,000	-	262,734	789,266	20,704
Puerto Rico	1,080,000	-	443,302	636,698	73,677
Virgin Islands	12,000	-	2,255	9,745	-
Republic of the Philippines	974,000	-	381,515	592,485	56,827
Cuba	2,670,720	1,680	1,406,651	1,265,749	210,616
Other foreign countries (see below)	<u>111,280</u>	<u>648</u>	<u>31,022</u>	<u>80,906</u>	<u>9,282</u>
Total	8,200,000	2,328	3,276,658	4,925,670	-

Foreign countries
other than Cuba
and Republic of
the Philippines

Dominican Republic	27,634	206	7,306	20,534)	
El Salvador	4,140	0	0	4,140)	
Haiti	2,674	9	2,457	226)	
Mexico	11,458	110	7,510	4,058)	
Nicaragua	7,832	0	5,057	2,775)	9,282
Peru	51,978	323	3,130	49,171)	
Unspecified countries (those without individual pro- rations)	<u>5,564</u>	<u>-</u>	<u>5,562</u> ^{3/}	<u>2</u> ^{4/}	-
Total	111,280	648	31,022	80,906	-

Liquid Sugar

Wine gallons of 72 percent total sugar content

Cuba	7,970,558	-	4,139,297	3,831,261	-
Dominican Republic	830,894	-	-	830,894	-
British West Indies	300,000	-	-	300,000	-

^{1/} Estimated.

^{2/} January-March, 146,936; April 1 - May 15, estimated same as 1953.

^{3/} Belgium, 337; China (Formosa), 1,040; Canada, 995; Costa Rica, 1036; Hong Kong, 4; Netherlands, 1,037; Panama, 1,113.

^{4/} Applications being held awaiting availability of quota comprise (short tons, raw value): Belgium, 243; Canada, 214; China (Formosa), 1,185; Costa Rica, 1,354; Denmark, 1,164; Hong Kong, 5; Netherlands, 974; Panama, 1,057. Total, 6,196.

Table 24 Revisions in deliveries of sugar by states, 1953

Data appearing in Table 10, Sugar Reports No. 24, have been revised as follows:

<u>1953</u>	<u>Cane sugar refineries</u>	<u>Beet sugar processors</u>	<u>Total</u>
<u>November</u>			
Idaho	3,754		22,129
Illinois	472,447		1,134,353
<u>Fourth Quarter</u>			
Idaho	10,591		70,172
Illinois	1,616,207		5,100,295
<u>Calendar year</u>			
Idaho	56,218		356,218
Illinois	7,393,913		15,307,480
Total		32,560,153	158,261,636



